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ON AN INTEGRAL EQUATION OF VOLTERRA TYPE USING A GENERALIZED LIPSCHITZ CONDITION

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1. Introduction

In applications of the contraction mapping principle to concrete problems an usual way is to associate a fixed point operator equation. The problem which arises is to construct a norm, equivalent to the norms of the spaces into consideration, with respect to which the operator in question is contractive.

In this note we shall give an "existence and uniqueness" theorem for an integral equation of Volterra type using the generalized contraction principle [2], when generalized norms (with values in the positive cone of a real ordered Banach space) are considered.